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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,651	11/28/2001	Daisuke Shibai	0425-0866P	7708

2292 7590 07/08/2003

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

ZALUKAEVA, TATYANA

ART UNIT	PAPER NUMBER
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1713

8

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/994,651

Applicant(s)

SHIBAI ET AL.

Examiner

Tatyana Zalukaeva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Election/Restrictions

DETAILED ACTION

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-9, drawn to a polymer, classified in class 526, subclass 318.41.
 - II. Claims 10 -11 , drawn to a cement mixture, classified in class 524, subclass 5.
 - III. Claim 12, drawn to a method of dispersing, classified in class 524, subclass various.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as molding compounds, and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the

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inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the copolymer as claimed in group I can be used as a molding composition or in absorbent articles.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Mr. John Bailey on 6/11/03 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-9.

Affirmation of this election must be made by applicant in replying to this Office action.

Claims 10 and 11 withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim is indefinite if undue experimentation is involved to determine boundaries of protection. This rationale is applicable to polymer "obtainable" by a stated process because any variation in any parameter within the scope of the claimed process would change the polymer produced. One who made or used a polymer made by a process other than the process cited in the claim would have to produce a polymer using all possible parameters within the scope of the claim, and then extensively analyze each product to determine if this polymer was obtainable by a process within the scope of the claimed process. Consult *Ex parte Tanksley*, 26 USPQ 2d 1389

- The recited "average number of added groups", as per claims 1 and 3 is indefinite because the meaning of such is not readily ascertainable;
- The recited " M1 and M2 of these groups not being present" as per claims 1 and 3 is indefinite in light of the clause that follows after this one ;

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- The recited "oxyalkylene or oxystyrene groups added to the dispersant molecule" is indefinite, because the dispersant copolymer is formed from the comonomer, which already has these groups;
- The recited in claims 5 and 6 "the average mole number of C2-4 oxyalkylene groups or oxystyrene groups added" is indefinite as per reasons identified above;

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

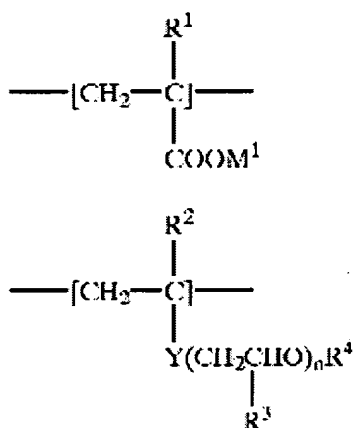
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Isomura et al (U.S. 6,437,027).

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Isomura discloses powdery dispersant for preparing hydraulic compositions (abstract) which is obtained from a copolymer that is a(meth)acrylate polymer having polyalkylene glycol chain (col. 2, lines 60-65). Of the aforementioned copolymers, preferable ones are acrylate or methacrylate polymer compounds comprising at least two different structural units represented by the following formulas (1) and (2) (col. 3, lines 21-25):



wherein the meaning of all substitute groups and the amounts of these groups are clearly the same as instantly claimed (see col. 3, lines 40-55).

More preferable (meth)acrylate copolymers (A) are (meth)acrylate copolymers having a number average molecular weight of 2,000-50,000, which comprise structural unit (5) represented by the following formula (5) in an amount of 40-70 mol %, structural unit (6) represented by the following formula (6) in an amount of 5-30 mol %, structural unit (7) represented by the following formula (7) in an amount of 1-20 mol %, structural unit (8) represented by the following formula (8) in an amount of 1-30 mol %, and structural unit (9) represented by the following formula (9) in an amount of 1-30 mol %: (col. 4, lines 45-65 – col. 5, lines 1-50). With regard to claim 9, Isomura teaches that obtained

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powder was crushed by means of a crusher (type MCG 180, product of Matsubara), to thereby prepare powdery cement dispersants (1) and (2) having a particle size of 50-500 μm as shown in Table 7.

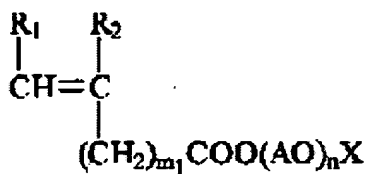
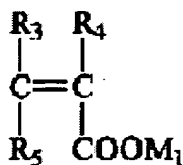
Therefore, all the limitations of the instant claims are met by the disclosure of Isomura.

11. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2000103660.

JP'660 discloses a copolymer prepared by polymerizing a

monomer mixture mainly comprising two monomers as main components.

The monomer mixture contains a monomer represented by formula I, and one or more kinds of monomers represented by formula II as main components.



R1 and R2 are each H or a methyl group; m_1 is an integer of 0-2;

AO is an oxyalkylene group of 2-3 carbon atoms; n is a number of 2-300; X is H or an alkyl group of 1-3 carbon atoms. In the formulas II and III, R4 and R5 are each H, a

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methyl group or the like; M1, M2 and Y are each H, an alkali metal, alkaline earth metal, ammonium or the like; m2 is an integer of 0-2. Monomers of formula (C) can also be present (see abstract).

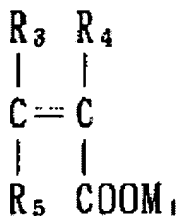
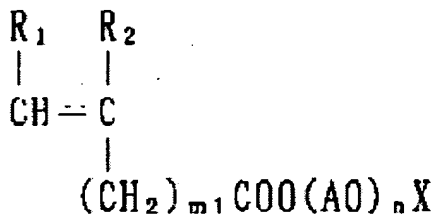
12. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2000044309.

JP'309 discloses an additive capable of imparting fluidity and fluidity-keeping properties to fine aggregates produced at any place by including a vinyl- based polymer having an oxyalkylene group having specific numbers of carbons in a molecule, and a specified average molecular weight. This additive comprises a vinyl-based polymer having a 2-3C oxyalkylene group in a molecule, and 500-500,000 numberaverage molecular weight (e.g. methanol-EO-monoester of methacrylic acid/Na acrylate), and a cationic compound having a tertiary N atom.

13. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated and by JP 09328345.

JP'345 discloses an admixture for concrete improving by of a copolymer, a high quality water reducing agent, a water-soluble polymer and a defoaming agent, with a specific molar ratio of monomers forming the copolymer and the average molecular weight of the copolymer. The copolymer is obtained by copolymerizing monomers of formula I and II.

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The molar ratio of the monomer of formula I to that of formula II is (1/90) to (50/50). A weight average molecular weight (measured by a gel-permeation chromatography method and reduced to a sodium polystyrenesulfonate) is 3,000-200,000. An aromatic water reducing agent is used as the high quality water reducing agent. A polyalkylene glycol derivative is used as the water-soluble polymer. A product having an excellent surface appearance is obtained by using the admixture for the concrete.

14. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2000086315.

JP'315 discloses an additive combined having a high flowability-imparting property to hydraulic compositions and an improved clay viscosity-imparting property, satisfying a standard strength, and useful for the hydraulic compositions.

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This additive for hydraulic compositions comprises a copolymer having two major comonomers (A) and (B) in a weight ratio of 5/95 to 95/5. A vinylic copolymer containing 2-3C polyoxyalkylene groups (average addition mole number: 2-300) in the molecule and having a weight-average mol.wt. of 5,000-500,000. A polymer having a mol.wt. of 1,000-20,000 and prepared by copolymerizing one or more monomers of the formula (A) and formula (B), wherein R1 is hydrogen atom or methyl group; R2, R3 are each hydrogen atom, methyl group or $M_2O(CO)(CH_2)_{m_1}$; M1, M2 are each hydrogen atom, an alkali metal, an alkaline earth metal, ammonium, or a mono-, di- or tri-alkylammonium which may be substituted by a hydroxyl group; (m_1) is an integer of 0-2. (see abstract).

15. Claim 9 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over anyone of the above recited Japanese patents, each one individually..

As for the limitation of claim 9 on the particle size of resulting powder, the rejection is made in the sense of The above rejections were made in the sense of **Fitzgerald** (205 USPQ 594). (CAFC) based on presumption that the properties governing the claimed compositions, if not taught, may be very well met by the compositions of JP patents, since the compositions of Ushida are essentially the same and made in essentially the same manner as applicants' compositions, wherein the burden to show that it is not the case is shifted to applicants; or in the sense of **In re Spada**, 911 F 2d 705, 709 15 USPQ 1655, 1658 (Fed. Cir. 1990), which settles that when the claimed compositions

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are not novel, they are not rendered patentable by recitation of properties, whether or not these properties are shown or suggested in prior art.

16. Other prior art references cited in PTOL-892 show the state of the art in production of dispersants for hydraulic compositions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (703) 308-8819. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

TATYANA ZALUKAEVA
PRIMARY EXAMINER



June 18, 2003